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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,813	12/15/2000	Nanjundiah Viswanath	42390.P10198	2420

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EXAMINER

YUSSUF, SAJID

ART UNIT	PAPER NUMBER
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2141

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DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/738,813

Applicant(s)

VISWANATH, NANJUNDIAH

Examiner

Sajid A Yussuf

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/15/2000-03/17/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. ***Claim(s) 1-6 & 8-22 is/are rejected under 35 U.S.C. 102(b) as being anticipated by Chou (US Patent No. 5,850,526 and Chou hereinafter)***

4. As per claim(s) 1 Chou discloses bypassing a compression process responsive to detecting a first marker in the data packets; wherein the first marker is a status byte or status field contains bits to enable or control compression (i.e., bypassing), (See Column 8 Lines 28-45) and resuming the compression process responsive to detecting a second marker in the data packets; wherein the second marker is interpreted as a checksum that verifies that compression has occurred by not having the original checksum (i.e., resuming compression) (See Column 7 Lines 25-58).

5. As per claim(s) 2 Chou teaches the claimed invention as described in claim(s) 1 above and furthermore discloses the first marker indicates that data subsequent to the first marker is compressed; wherein the new transmit packet is sent down to the compression engine only when the packet after it was compressed based on the status byte. (See Column 10 Lines 15-30).

6. As per claim(s) 3 Chou teaches the claimed invention as described in claim(s) 1-2 above and furthermore discloses the second marker indicates that data previous to the second marker is compressed; wherein the new appended checksum is appended at the end thus signifying that any data previous to the checksum is compressed if it has generated a new checksum for the compressed packet (See Column 7 Lines 40-57).

7. As per claim(s) 4 Chou teaches the claimed invention as described in claim(s) 1-3 above and furthermore discloses the first marker is a predetermined string of data; wherein the status byte is a predetermined string of data that includes bits to enable and control compression (i.e., "C" = compressed or "NC" = not compressed or an address "DA=0A01"), (See Column 7 Lines 30-45).

8. As per claim(s) 5 Chou teaches the claimed invention as described in claim(s) 1-4 above and furthermore discloses the first marker is a predetermined text string of data; wherein the status byte is a predetermined string of data that includes bits to enable and control compression (i.e., "C" = compressed or "NC" = not compressed), (See Column 7 Lines 30-45).

9. As per claim(s) 6 Chou teaches the claimed invention as described in claim(s) 1-5 above and furthermore discloses the compression process compresses the data packets prior to sending the data packets over a network, (See Column 7 Lines 18-33).

10. As per claim(s) 8 Chou teaches the claimed invention as described in claim(s) 1-7 above and furthermore discloses resuming the compression process after a timeout (i.e., specific period of time) occurs, (i.e., disabling compression for a period of time) (See Column 8 Lines 30-56).

11. As per claim(s) 9 Chou discloses searching (i.e., checking) a first data packet for a first marker that indicates that subsequent data is already compressed wherein the new transmit packet is sent down to the compression engine only when the packet after it was compressed based on the status byte. (See Column 10 Lines 15-30); forwarding the first data packet without trying to

recompress it, if the first marker (i.e., status bit) was found, (See Column 8 Lines 28-67); and compressing and forwarding the first data packet, if the first marker was not found, (i.e., compressed data bit was set), (See Column 8 Lines 28-57).

12. As per claim(s) 10 Chou teaches the claimed invention as described in claim(s) 9 above and furthermore discloses searching the first data packet for the first marker is performed by looking for a predetermined text string (i.e., an address) in the first data packet; wherein the first data packet is a broadcast packet (See Column 9 Lines 15-30).

13. As per claim(s) 11 Chou teaches the claimed invention as described in claim(s) 9-10 above and furthermore discloses forwarding one or more subsequent data packets without trying to recompress them, if the first marker was found, (i.e., status bit if set), (See Column 8 Lines 28-67 & Column 9 Lines 1-14); and compressing and forwarding the one or more subsequent data packets, if the first marker was not found, (See Column 8 Lines 28-67 & Column 9 Lines 1-14).

14. As per claim(s) 12 Chou teaches the claimed invention as described in claim(s) 9-11 above and furthermore discloses searching for a second marker that indicates that data following the second marker is not compressed, (i.e., the checksum is still the original frame checksum), (See Column 7 Lines 50-57); and compressing and forwarding a second set of one or more subsequent data packets after finding the second marker; wherein the replacement of the second marker (i.e., checksum) indicates that compression has taken place and the packet is forwarded, wherein each of the second set of one or more subsequent data packets are searched for the first marker (i.e., status byte); wherein as the packet traverses through the OSI layer the layer where the compression engine exists checks the status field of the packet to verify whether or not the packet is compressed or not (See Column 8 Lines 18-57).

15. As per claim(s) 13 Chou teaches the claimed invention as described in claim(s) 9-12 above and furthermore discloses searching for the second marker is performed by looking for a second

predetermined text string; wherein checksum values are compared and a new checksum is generated if the original does not comply with the compressed data, (See Column 7 Lines 50-67).

16. As per claim(s) 14 Chou discloses searching a data packet for a first string of data; bypassing a compression process responsive to detecting the first string of data; wherein the first marker is a status byte or status field contains bits to enable or control compression (i.e., bypassing), (See Column 8 Lines 28-45); searching for a second string of data; and resuming the compression process responsive to detecting the second string of data; wherein the second marker is interpreted as a checksum that verifies that compression has occurred by not having the original checksum (i.e., resuming compression) (See Column 7 Lines 25-58).

17. As per claim(s) 15 Chou teaches the claimed invention as described in claim(s) 14 above and furthermore discloses a string search engine is used to search the data packet for the first string of data; wherein the status byte is a predetermined string of data that includes bits to enable and control compression and is searched when traversing through the OSI layer (i.e., "C" = compressed or "NC" = not compressed or an address "DA=0A01"), (See Column 7 Lines 30-45).

18. As per claim(s) 16 Chou teaches the claimed invention as described in claim(s) 14-15 above and furthermore discloses a string search engine of a network processor is used to search the data packet for the first string of data; wherein the status byte is a predetermined string of data that includes bits to enable and control compression and is searched when traversing through the OSI layer (i.e., "C" = compressed or "NC" = not compressed or an address "DA=0A01"), (See Column 7 Lines 30-45).

19. As per claim(s) 17 Chou teaches the claimed invention as described in claim(s) 14-16 above and furthermore discloses searching a subsequent data packet for a third string of data, (See Column 8 Lines 18-67 & Column 9 Lines 1-14); bypassing the compression process responsive to detecting the third string of data, (See Column 10 Lines 30-50); searching for a fourth string of data,

(See Column 8 Lines 57-67); and resuming the compression process responsive to detecting the fourth string of data, (See Column 8 Lines 18-67 & Column 9 Lines 1-14).

20. As per claim(s) 18 Chou teaches the claimed invention as described in claim(s) 14-17 above and furthermore discloses resuming the compression process responsive to a timeout, (i.e., specific period of time) occurs, (i.e., disabling compression for a period of time) (See Column 8 Lines 30-56).

21. As per claim(s) 19 Chou teaches the claimed invention as described in claim(s) 14-18 above and furthermore discloses testing whether a current data packet is compressed responsive to a timeout, (i.e., specific period of time) occurs, (i.e., disabling compression for a period of time) (See Column 8 Lines 30-56).

22. As per claim(s) 20 Chou discloses search a data packet for a first string of data; wherein the first string of data is a status byte or status field contains bits to enable or control compression (i.e., bypassing), (See Column 8 Lines 28-45); bypass a compression process responsive to detecting the first string of data, search for a second string of data, and resume the compression process responsive to detecting the second string of data; wherein the second marker is interpreted as a checksum that verifies that compression has occurred by not having the original checksum (i.e., resuming compression) (See Column 7 Lines 25-58). (See Column 9 Lines 15-65);

23. As per claim(s) 21 Chou teaches the claimed invention as described in claim(s) 20 above and furthermore discloses search a subsequent data packet for a third string of data, (See Column 8 Lines 18-67 & Column 9 Lines 1-14); bypass the compression process responsive to detecting the third string of data, (See Column 10 Lines 30-50); search for a fourth string of data, (See Column 8 Lines 18-67 & Column 9 Lines 1-14); and resume the compression process responsive to detecting the fourth string of data, (See Column 8 Lines 18-67 & Column 9 Lines 1-14).

24. As per claim(s) 22 Chou teaches the claimed invention as described in claim(s) 20-21 above and furthermore discloses the compression process compresses data packets prior to the data packets being forwarded across a network, (See Column 7 Lines 10-15).

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

26. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Determining the scope and contents of the prior art.
Ascertaining the differences between the prior art and the claims at issue.
Resolving the level of ordinary skill in the pertinent art.
Considering objective evidence present in the application indicating obviousness or nonobviousness.

27. Claim(s) 7 & 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou et al. (US Patent No. 5,850,526 and Chou hereinafter) in view of Kronenberg (US Patent Application Publication No. 2002/0078227 and Kronenberg hereinafter).

28. As per claim 7,23 Chou discloses the claimed invention as described above.

However, Chou does not explicitly teach encrypting the data packets prior to sending the data packets over the network.

Kronenberg teaches encrypting the data packets prior to sending the data packets over the network, (See Column 2 Paragraph 0032-0033).

Therefore it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to modify the teaching of Chou with the teachings of Kronenberg to include encrypting the data packets prior to sending the data packets over the network with the motivation to provide for a method of using the ever-increasing capacity of the Internet and telecommunications companies backbones as a storage mechanism (for efficient delivery of any data) and a secure transport (for the possible untraceable, unanimous, ultra-secure delivery of any data). (See Kronenberg Column 1 Lines 0012).

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- a. Jung et al. (US Patent Application Publication No. 2001/0052072) discloses encryption of payload on narrow band IP links;
- b. Geiger et al. (US Patent No. 5,701,302) discloses method and apparatus for adaptively companding data packets in a data communication system;
- c. Shaffer et al. (US Patent No. 6,377,573) discloses a method and apparatus for providing a minimum acceptable quality of service for vice conversation over a data network;
- d. Birdwell et al. (US Patent No. 6,032,197) discloses a data packet reader compression for unidirectional transmission;
- e. Kalkstein (US Patent No. 5,945,933) discloses adaptive packet compression apparatus and method
- f. Poier et al. (US Patent Application No. 2002/0124090) discloses a method and apparatus for data communication between a plurality of parties;
- g. Bloomfield et al. (US Patent No. 6,081,623) discloses a method and apparatus for lossless bandwidth compression of a series of glyphs;
- h. Barron (US Patent No. 6,377,573) discloses a method, apparatus, and system for secure data transport;

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sajid A Yussuf whose telephone number is (703) 305-8752. The examiner can normally be reached on Monday-Thursday 7:30-5:00 PM and Alternate Fridays.

31. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (703) 305-4003. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

32. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Sajid Yussuf
Patent Examiner
Technology center 2100
19 March 2004


RUPAL DHARIA
SUPERVISORY PATENT EXAMINER